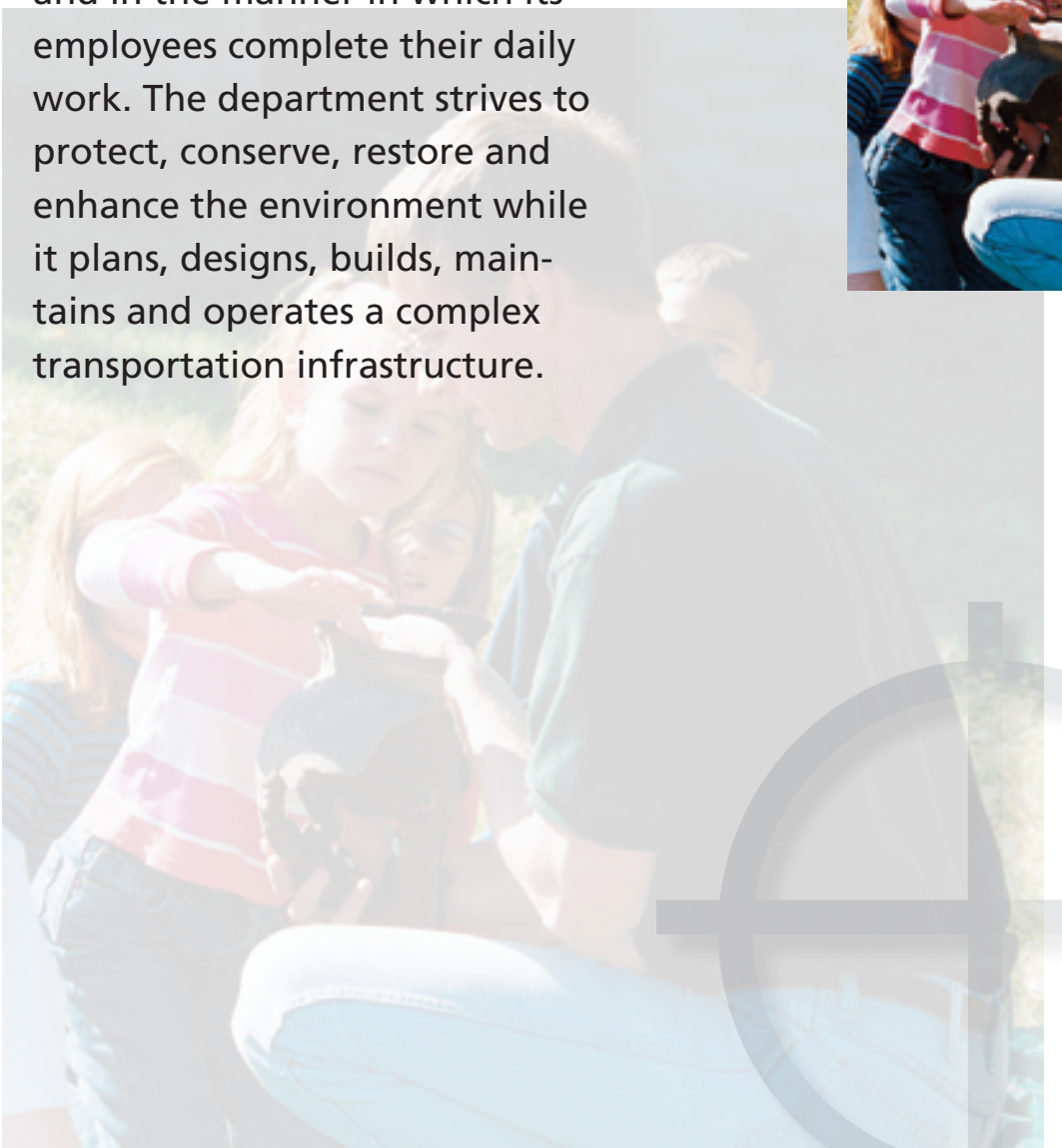
Environmentally Responsible

Tangible Result Driver – Dave Nichols,
Director of Project Development

MoDOT takes great pride in being a good steward of the environment, both in the construction and operation of Missouri's transportation system and in the manner in which its employees complete their daily work. The department strives to protect, conserve, restore and enhance the environment while it plans, designs, builds, maintains and operates a complex transportation infrastructure.



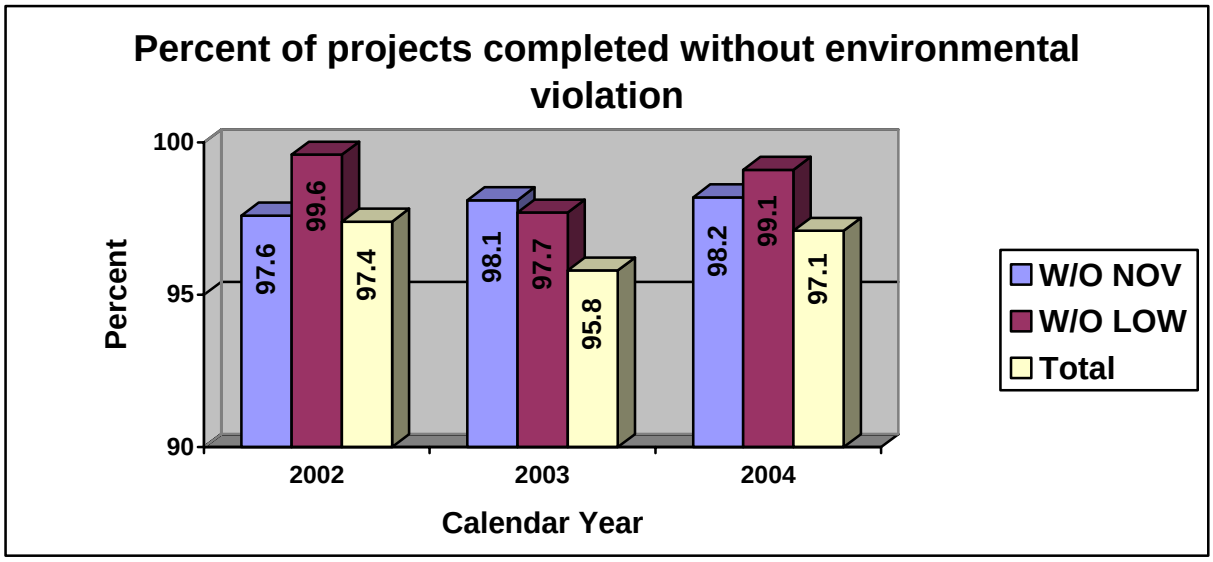
Environmentally Responsible

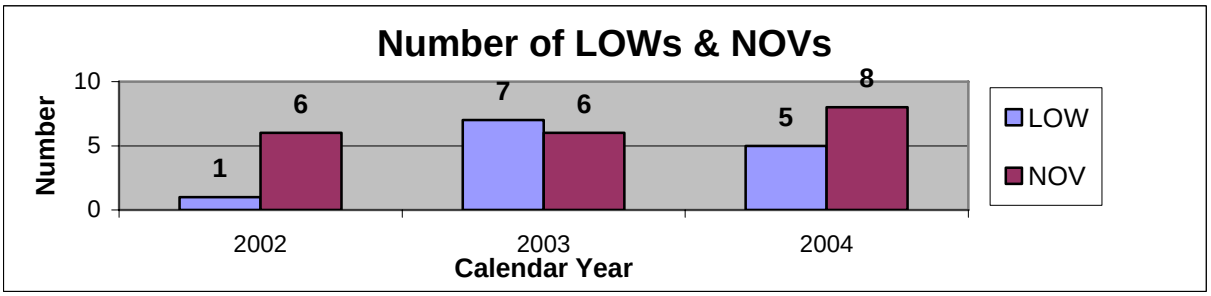
Percent of projects completed without environmental violation

Results Driver: Dave Nichols, Director of Project Development
Measurement Driver: Kathy Harvey, Technical Support Engineer

Purpose of the Measure:
This measure tracks environmental violations the department receives. MoDOT projects must comply with several environmental laws and regulations. In order to be in compliance, MoDOT makes commitments throughout the project development process that must be carried forward during construction and maintenance. In addition, the various permits obtained for the projects also contain specific requirements that must be complied with. If a violation is noted, it can result in either a Letter of Warning (LOW) or a Notice of Violation (NOV) to MoDOT.

Measurement and Data Collection:
LOWs and NOVs both are written correspondence to MoDOT from the regulatory agency. MoDOT keeps a database of all of these received by project number. The report shown is by project with a list of violations received, which may span several years. The chart below is based on a calendar year of projects reported to be completed during that year and the number of violations received.





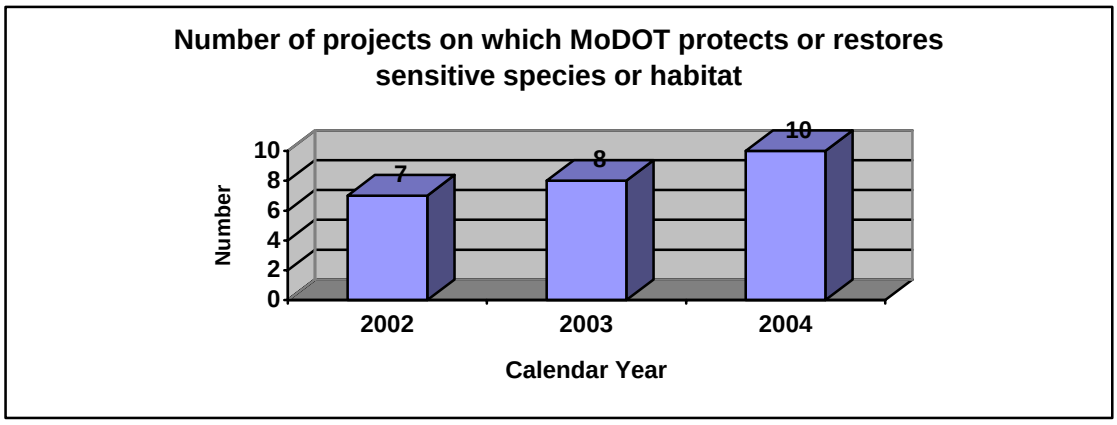
Environmentally Responsible

Number of projects on which MoDOT protects or restores sensitive species or habitat

Results Driver: Dave Nichols, Director of Project Development
Measurement Driver: Kathy Harvey, Technical Support Engineer

Purpose of the Measure:
Missouri is home to many rare species of plants and animals, some of which are on the federal endangered species list. The Endangered Species Act of 1973 (as amended) prohibits harm or harassment of these species. Avoiding or minimizing harm to these species and protecting or restoring their habitat is a fundamental obligation of this organization. Avoidance and/or protection is the first goal of our efforts, but restoration is the minimum acceptable result.

Measurement and Data Collection:
On all MoDOT projects, the department investigates and informs the US Fish and Wildlife Service of any activity in the vicinity of a known threatened or endangered species or critical habitat. Through the required consultation process with them, primarily through letters, MoDOT has the data to report on this measure. Many MoDOT projects will never get close to a site and therefore will not be included in this data. The report will document the total number of projects per year that protect or replace sensitive habitat.



Desired Trend:

N/A

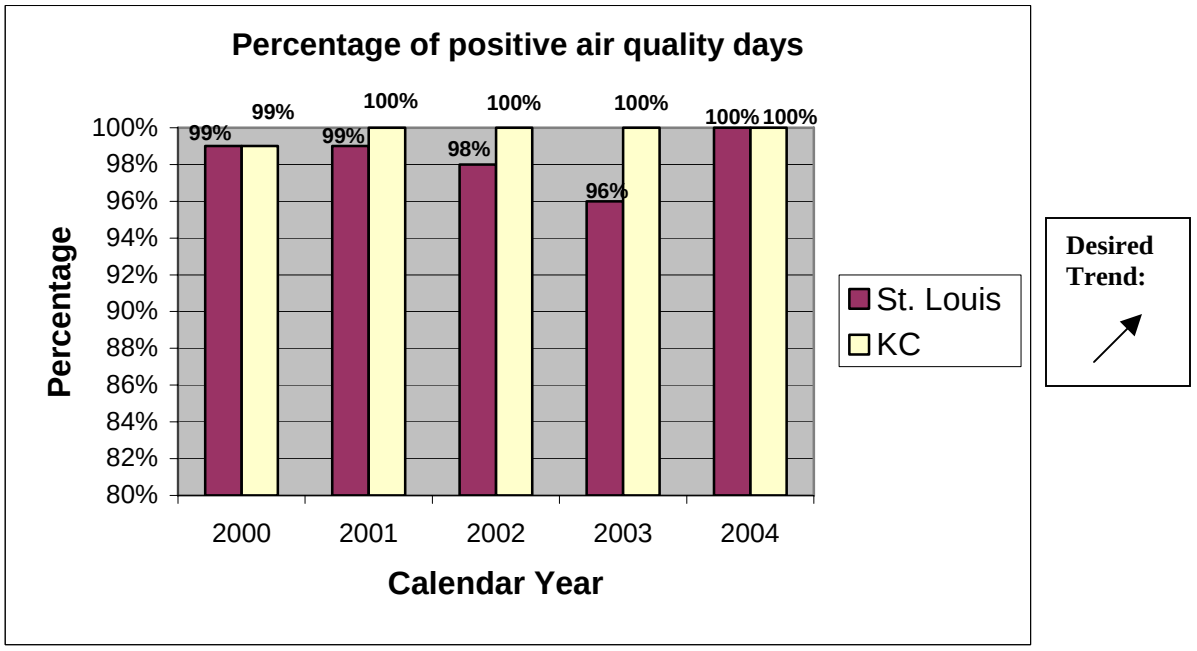
Environmentally Responsible

Percent of air quality days that meet Environmental Protection Agency (EPA) standards by metropolitan area

Results Driver: Dave Nichols, Director of Project Development
Measurement Driver: Kyle Kittrell, Director of Transportation Planning

Purpose of the Measure:
This measure tracks MoDOT's role in improving the air quality of Missouri's metro areas. The Environmental Protection Agency (EPA) approves state plans to improve air quality. MoDOT makes every effort to design and build roads that meet air quality standards and do not violate the EPA-approved plans.

Measurement and Data Collection:
EPA establishes several air quality standards for the United States. The ground level ozone standard affects Missouri. Ozone readings are collected in Kansas City and St. Louis during the ozone season – April through October. The data contained in the table below reflects the percentage of days, by metro area, that met the EPA's ground level ozone standard.



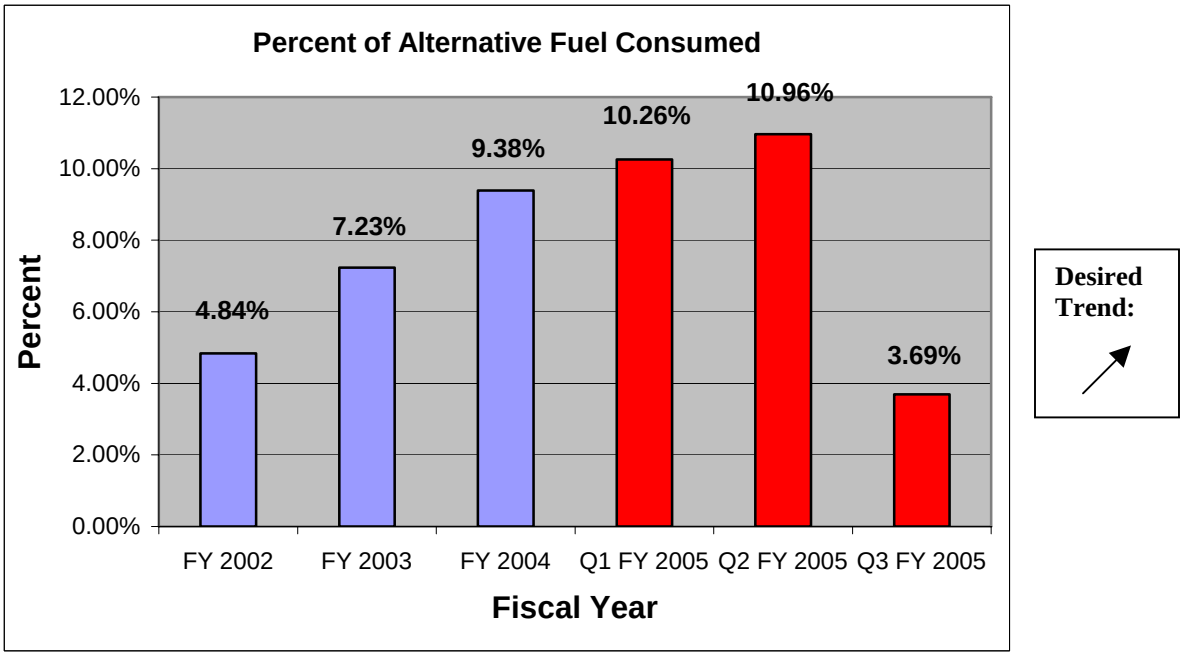
Environmentally Responsible

Percent of alternative fuel consumed

Results Driver: Dave Nichols, Director of Project Development
Measurement Driver: Dave DeWitt, Director of Administrative Services

Purpose of the Measure:
This measure tracks the use of alternative fuels. It shows MoDOT's contribution toward environmental responsibility and conservation of resources.

Measurement and Data Collection:
Alternative fuel is E-85 and biodiesel. When a user pumps fuel into a MoDOT vehicle or piece of equipment, that usage by gallon and by fuel type is captured in the SAMII system. Reports are generated to extract the number of gallons used from that system.



*Note full fiscal years are displayed in blue and quarters are displayed in red.

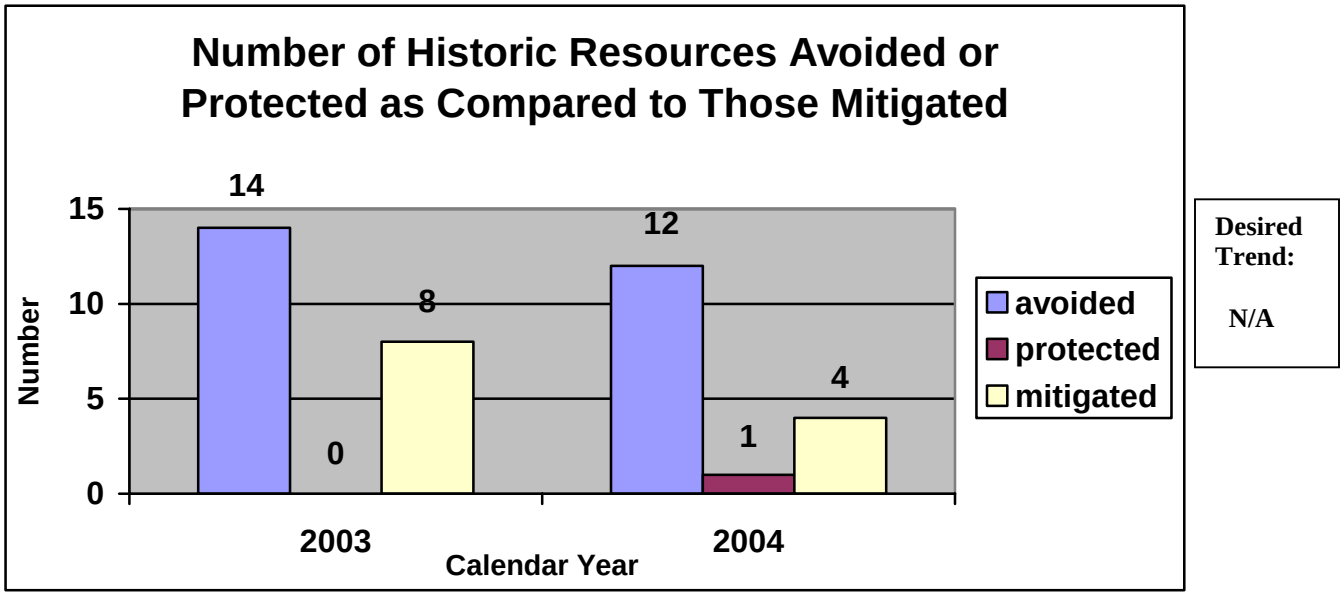
Environmentally Responsible

Number of historic resources avoided or protected as compared to those mitigated

Results Driver: Dave Nichols, Director of Project Development
Measurement Driver: Bob Reeder, Historic Preservation Coordinator

Purpose of the Measure:
Federal historic preservation laws require federally-funded projects to avoid or mitigate project impacts to historic buildings and bridges whenever feasible. Establishing and maintaining local and public support for our projects also requires MoDOT to avoid or save historic resources, or mitigate project impacts to these resources since the resources often are highly visible, well known, and may be important sources of pride and historical identity for local communities and groups. Historic resources may be listed on state and national registers and their status tracked by state and national historic preservation advocacy groups; project impacts to these resources can bring adverse local, state and national attention to the project and the agency overall.

Measurement and Data Collection:
Data collection begins at approved Conceptual Plans stage. As preliminary plans, right of way plans and final plans are prepared by the district, the department staff tracks the number of historic resources in the project footprint and the number of times we successfully consult with the district to make changes to the plans to avoid or protect these resources versus the number of resources for which MoDOT has to mitigate. The data will only reflect historic resources that are considered by projects after the conceptual plan stage. Historic resources identified in project scoping but avoided through redesign at stage of project development will not be included in the count. Avoidance of historic resources through redesign or shifting of alignments during the National Environmental Policy Act planning process is not reflected.



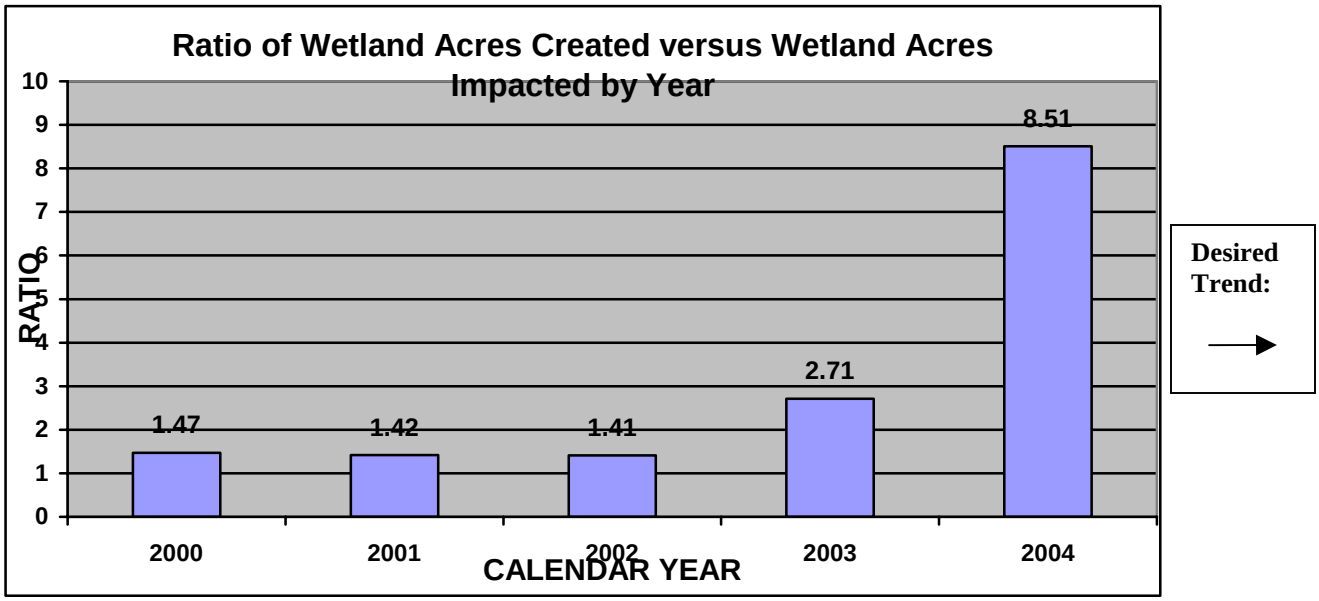
Environmentally Responsible

Ratio of acres of wetlands created compared to the number of acres of wetlands impacted

Results Driver: Dave Nichols, Director of Project Development
Measurement Driver: Gayle Unruh, Wetland Coordinator

Purpose of the Measure:
Wetlands are a valuable resource in Missouri, having beneficial functions such as wildlife habitat, flood storage and water quality improvement. In addition to these benefits, it is required in the Clean Water Act that impacts to wetlands be avoided or minimized or that wetlands be recreated when a wetland is destroyed during a transportation project. MoDOT has unavoidable impacts on wetlands and thus recreates wetlands. The national goal, set by the FHWA, for recreating wetland is to construct 1.5 acres of wetland for every 1.0 acre of wetland impacted. Recreating wetlands at this ratio helps to offset the lost beneficial functions during the time it takes for a wetland to develop, which in the case of forested wetlands can be a considerable time period. This measure helps ensure that MoDOT is doing its part to maintain wetlands in Missouri.

Measurement and Data Collection:
Acres of impact will be taken from Clean Water Act permits and will be listed by project. Acres of wetland construction will be taken from roadway design plans or mapped wetland areas recreated by MoDOT, again listed by project. Impacts may occur in a different year from the mitigation, so for the purposes of this measure, the timeframe for the reporting is when the mitigation construction is complete based on a calendar year.



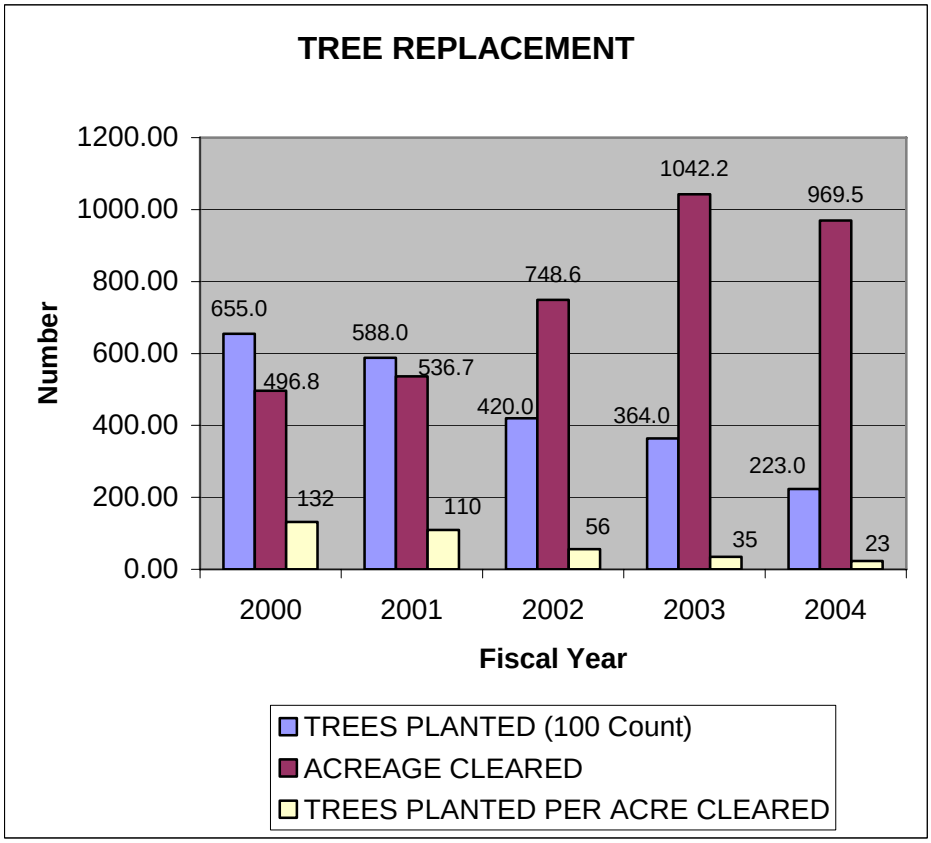
Environmentally Responsible

Number of trees planted compared to number of acres cleared

Results Driver: Dave Nichols, Director of Project Development
Measurement Driver: Jerry Hirtz, Technical Support Engineer, Construction & Materials

Purpose of the Measure:
This measure tracks MoDOT's effort to replace trees removed as a result of clearing operations on its construction projects.

Measurement and Data Collection:
MoDOT is committed to plant trees to replace those removed by construction operations. MoDOT documents acreage cleared through its contract administration processes and a record is maintained of trees ordered each year for spring planting. In the future, this measure can be amended to compare trees planted to trees removed as counting procedures are refined and improved.



Desired Trend:

N/A

Environmentally Responsible

Number of tons of recycled/waste materials used in construction projects

Results Driver: Dave Nichols, Director of Project Development
Measurement Driver: Mark Shelton, Assistant State Construction and Materials Engineer

Purpose of the Measure:
This measure will track MoDOT's efforts to be environmentally responsible while being fiscally responsible.

Measurement and Data Collection:
SiteManager, MoDOT's construction management data base, which tracks material incorporated into construction projects, will be used to collect the data on an annual basis. Data collection began January 1, 2005 with an expected report in the January 2006 edition of the Tracker.

Measure is Under Development